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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,838	08/06/2001	Jon Lee Howell	CH2827 US NA	2028

23906 7590 03/09/2004

E I DU PONT DE NEMOURS AND COMPANY  
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WILMINGTON, DE 19805

EXAMINER

MCAVOY, ELLEN M

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/923,838

Applicant(s)

HOWELL ET AL.

Examiner

Ellen M McAvoy

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/7/01.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 112***

Claims 3-6, 8-9, 11-17, 20-23, 25-26, and 28-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are drawn to a compound of Formula \* set forth in the specification. However, the claims must particularly point out and distinctly claim the subject matter applicants regard as the invention; i.e., the claims stand alone and cannot make reference to the specification. Correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title; if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howell et al (6,184,187).

Howell et al ["Howell"] disclose novel phosphorus compounds which are effective corrosion inhibitors for perfluoropolyether-containing lubricating oils, grease compositions and hydraulic fluid compositions. The phosphorus compounds include perfluoroether- and phosphorus-containing compounds selected from: Class A- the group consisting of partially esterified aryl phosphates or aryl phosphonates containing either (i) a mono- or poly-alkylene

oxide linking group between the phosphorus and fluorocarbon group, or (ii) no linking group between the phosphorus and fluorocarbon group; Class B-asymmetrical perfluoroether- and phosphorus-containing compounds being either (i) aryl phosphites or phosphates containing a mono- or poly-alkylene oxide linking group between the phosphorus and fluorocarbon group, or (ii) aryl phosphines, phosphinites, phosphonites, phosphine oxides, phosphinates or phosphonates with no linking group between the phosphorus and fluorocarbon group; and Class C-salts of partially esterified aryl phosphates having an aryl group between the phosphorus and the fluorocarbon. See column 2, lines 12-35. Representative compounds within Class A, Class B and Class C are set forth by Howell in column 2, line 53 to column 6, line 60. The examiner is of the position that these compounds meet the limitation of the above rejected claims which are broadly drawn to "a phosphorus-, perfluoropolyether, and perfluoroalkyl-containing compound comprising either (i) mono- or poly-alkylene oxide linking groups between the phosphorus and fluorocarbon group, or (ii) no linking group between the phosphorus and fluorocarbon group, or (iii) individual mixtures of (i) and (ii); and said fluorocarbon group is perfluoropolyether or perfluoroalkyl group". Dependent claims 18 and 35-36 limit the compounds to those partially esterified phosphorus-containing compounds. The examiner is of the position that the compounds of applicants' claims are indistinguishable from the compounds disclosed in Howell.

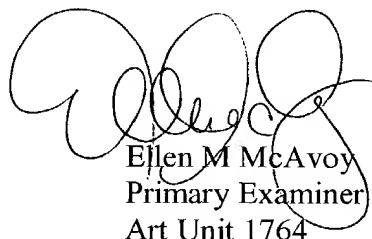
*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ellen M McAvoy  
Primary Examiner  
Art Unit 1764

EMcAvoy  
March 1, 2004